



DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

[Docket No. PHMSA-2021-0041]

DNV's Petition for Phast version 8.4 as an Alternative Model for Calculating the Vapor-Gas Dispersion Exclusion Zone

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA), DOT.

ACTION: Notice.

SUMMARY: PHMSA is publishing this notice, a draft letter of decision, and a draft environmental assessment (DEA) to solicit public comment on a petition to authorize the use of an alternate flammable vapor-gas dispersion model. At the conclusion of the 30-day comment period, PHMSA will review the comments received from this notice as part of its evaluation to grant or deny the petition.

DATES: Submit any comments regarding the petition by **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: Comments should reference the docket number for the petition request and may be submitted in one of the following ways:

- *E-Gov Web:* www.regulations.gov. This site allows the public to enter comments on any Federal Register notice issued by any agency. Follow the online instructions for submitting comments.
- *Mail:* Docket Management System: U.S. Department of Transportation (DOT), 1200 New Jersey Avenue SE, West Building Ground Floor, Room W12-140, Washington, D.C. 20590-0001.
- *Hand Delivery:* DOT Docket Management System: West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, between 9:00 a.m. and 5:00 p.m. ET, Monday through Friday, except Federal holidays.

- *Fax:* 202-493-2251.
- *Instructions:* You should identify the docket number for the special permit request you are commenting on at the beginning of your comments. If you submit your comments by mail, please submit two copies. To receive confirmation that PHMSA has received your comments, please include a self-addressed stamped postcard. Internet users may submit comments at www.regulations.gov.
- *Note:* There is a privacy statement published, go to www.regulations.gov, scroll down to the bottom left to click “Privacy & Security Notice” to review the statement.

Comments, including any personal information provided are posted without changes or edits to www.regulations.gov.
- *Confidential Business Information:* Confidential Business Information (CBI) is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments in response to this notice contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this notice, it is important that you clearly designate the submitted comments as CBI. Pursuant to Title 49 Code of Federal Regulations (CFR) 190.343, you may ask PHMSA to provide confidential treatment to information you give to the agency by taking the following steps: (1) mark each page of the original document submission containing CBI as “Confidential;” (2) send PHMSA a copy of the original document with the CBI deleted along with the original, unaltered document; and (3) explain why the information you are submitting is CBI. Submissions containing CBI should be sent to Ms. Kay McIver, 1200 New Jersey Avenue SE, DOT: PHMSA – PHP-80, Washington, D.C. 20590-0001. Any commentary PHMSA receives that is not specifically designated as CBI will be placed in the public docket.

- *Privacy Act:* DOT may solicit comments from the public regarding certain general notices. DOT posts these comments, without edit, including any personal information the commenter provides, to www.regulations.gov, as described in the system of records notice (DOT/ALL-14 FDMS), which can be reviewed at www.dot.gov/privacy.
- *Docket:* For access to the docket to read background documents or comments received, go to www.regulations.gov. Follow the online instructions for accessing the dockets. Alternatively, you may review the documents in person at the street address listed above.

FOR FURTHER INFORMATION CONTACT: General: Ms. Kay McIver by telephone at 202-366-0113, or by e-mail at kay.mciver@dot.gov. **Technical:** Mr. Thach Nguyen by telephone at 909-262-4464, or by e-mail at thach.d.nguyen@dot.gov.

SUPPLEMENTARY INFORMATION:

PHMSA is evaluating a petition from DNV GL Digital Solutions (DNV) requesting approval, pursuant to 49 CFR 190.9, authorizing use of its Process Hazard Analysis Software Tool version 8.4 (Phast v8.4) as an alternate model for calculating, pursuant to § 193.2059, the flammable vapor-gas dispersion exclusion zones for part 193-regulated LNG facilities.

PHMSA's safety standards for the siting of LNG facilities are found in subpart B of part 193. Section 193.2059 in particular requires that each LNG container and LNG transfer system must have a flammable vapor-gas dispersion exclusion zone, defined as the area surrounding an LNG facility in which an operator or government agency legally controls all activities. The exclusion zone is intended to protect the public from the flammable vapor gas and unsafe levels of thermal radiation in the event of a release or ignition, respectively. In accordance with § 193.2059(a), an LNG operator must calculate vapor-gas dispersion exclusion zones using either the Dense Gas Dispersion model or FEM3A model. Section 193.2059 also states that the Administrator (or his delegate) may, pursuant to the procedures set forth in § 190.9, approve

the use of alternative vapor-gas dispersion models that take into account the same physical factors and have been validated by experimental test data.

On May 18, 2020, DNV petitioned PHMSA for approval of its Phast version 8.23 as an alternate model for calculating the LNG flammable vapor-gas dispersion exclusion zones. PHMSA had previously approved DNV's Phast versions 6.6 and 6.7 as alternate models for LNG flammable vapor-gas dispersion on October 7, 2011. On September 4, 2020, DNV submitted an updated petition requesting approval of Phast v8.4, instead of version 8.23.

The petition request, draft letter of decision, and DEA for Phast v8.4 are available for review and public comment in Docket No. PHMSA-2021-0041. We invite interested persons to review and submit comments on the draft letter of decision and the DEA in the docket. Please include any comments on potential safety and environmental impacts that may result if Phast v8.4 is approved. Comments may also include relevant data.

Before issuing a final decision on DNV's petition, PHMSA will evaluate all comments received on or before the comment closing date. Comments received after the closing date will be evaluated if it is possible to do so without incurring additional expense or delay. PHMSA will consider each relevant comment we receive in making our final decision to grant or deny this request.

Issued in Washington, D.C. under authority delegated in 49 CFR 1.97.

Alan K. Mayberry,
Associate Administrator for Pipeline Safety.

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